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MICHAEL CHAN NCR CORPORATION 1700 SOUTH PATTERSON BLVD DAYTON, OH 45479-0001			EXAMINER DENNISON, JERRY B	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/884,523
Filing Date: June 18, 2001
Appellant(s): COUTTS ET AL.

George H. Gates
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/3/2008 appealing from the Office action mailed 4/6/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 20-40, 55-74, and 78-81 are pending in the application.

Claims 1-19, 41-54, 75-77, and 82-87 have been canceled.

Claims 55-74 and 78-81 have been withdrawn.

Claims 20-40 are rejected.

This appeal involves claims 20-40.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 6/6/2007 has not been entered.

As clearly explained in Examiner's Remarks in the Non-Compliant Appeal Brief, filed 01/09/2008, the Advisory Action, filed 10/9/2007, contained an error. The error should have been crystal clear as the Advisory Action clearly contradicts itself by first stating in section 3 that the amendments will not be entered because they raise new

issues that would require further search and/or consideration, and then in section 7, the box being checked indicating that the amendments will be entered, and then also in section 7, indicating that the claims remain rejected. A simple phone call could have cleared this issue up.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,274,795	Vachon	12-1993
4,636,947	Ward	1-1987
5,537,626	Kraslavsky et al.	7-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Vachon (U.S. 5,274,795).

1. Regarding claim 20, Vachon disclosed a self-service terminal comprising a plurality of peripheral devices (Vachon, col. 2, lines 28-30) connected to a central processor and controlled by that central processor (Vachon, col. 2, lines 63-66), each of the peripheral devices having an independent associated control application for controlling the peripheral, the independent associated control applications being operable to communicate with each other independent of the central processor, whereby, in use, each peripheral device operates in response to signals generated by the central processor as well as all other peripheral devices whose operation depends on or is connected with the state of that peripheral device (Vachon, col. 1, lines 55-60, col. 2, lines 57-61, Vachon disclosed the peripheral device being able to communicate with each other independent of the central processor through the use of DMA through a bus).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 21, 23, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward (U.S. Patent Number 4,636,947) in view of Vachon (U.S. 5,274,795).

2. Regarding claim 20, Ward disclosed, a self-service terminal comprising a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having an independent associated control application, the independent associated control applications being operable to communicate with each other, whereby, in use, each peripheral device operates in response to signals generated by the central processor as well as all other peripheral devices whose operation depends on or is connected with the state of that peripheral device (Ward, col. 2, lines 35-60 and Fig. 2, Ward teaches a terminal in a network where each of the peripheral devices include a subsystem controller and memory for parallel transaction event processing among other devices, Ward teaches the protocol handler tasks for controlling data formatting and timing between devices communicating in an on-line network. In order for an ATM to properly operate, the peripherals function in a ordered sequence and therefore they do operate in response to signals generated by the peripheral devices whose operation comes beforehand in the sequence).

However, Ward did not explicitly state the independent associated control applications being operable to communicate with each other independent of the central processor.

In an analogous art, Vachon disclosed peripheral devices being able to communicate with each other independent of the central processor through the use of DMA through a peripheral bus (Vachon, col. 1, lines 55-60, col. 2, lines 57-61).

Ward disclosed a data acquisition system in which multiple peripherals devices are used in transaction processing for an ATM. Vachon disclosed a data acquisition system that allows the peripherals devices to communicate with each other without the use of the central processor (Vachon, col. 1, lines 55-60).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the peripheral bus of Vachon into Ward to provide a set of concurrently executing program modules communicating through streams of data (Vachon, col. 1, lines 60-65) and in order to decrease the cost in terms of processor time for the processor to acquire data from the peripheral hardware (Vachon, col. 1, lines 20-28).

3. Regarding claim 21, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using a peer-to-peer communication protocol (Ward, col. 3, lines 20-25, Fig. 2).

4. Regarding claim 23, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the independent associated control applications communicate with each other using signals addressed directly to selected

peripheral devices so that a peripheral device only communicates with those peripheral devices whose operation depends on or is connected with the state of that peripheral device (Ward, col. 3, lines 40-60, col. 4, lines 1-10, 30-35, Ward disclosed that the peripherals operate in a transaction sequence, meaning that a peripheral device operates according to the operation of peripheral devices that operate before it).

5. Regarding claim 34, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein, in use, each of the independent associated control applications are executed on a single central processor (Ward, col. 3, lines 20-26).

6. Regarding claim 36, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20, including wherein the peripheral devices are selected from the following peripheral devices: user interface, card reader, receipt printer, cash dispenser, and a bar code scanner (Ward, Fig. 2, 96).

7. Claims 22, 24-33, 35 and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward and Vachon and further in view of Kraslavsky et al. (U.S. Patent Number 5,537,626).

8. Regarding claim 22, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent

associated control applications communicate with each other using broadcast signals in order to communicate a present state of the peripheral devices. Kraslavsky disclosed communication links that enable peripheral devices of a terminal to communicate with each other through broadcasting (Kraslavsky, col. 14, lines 5-22). It would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the communication links of Kraslavsky into Ward and Vachon in order to enable the peripheral devices of a terminal to communicate with one another, eliminating the need to use the Peripheral Control Unit.

9. Regarding claim 24, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein an independent associated control application that operates in response to a signal communicated from another peripheral device acknowledges receipt of that signal. Kraslavsky disclosed peripheral devices responding to broadcast signals (Kraslavsky, col. 14, lines 5-15). See motivation above.

10. Regarding claim 25, Ward and Vachon disclosed disclosed the limitations, substantially as claimed, as described in claim 20, including wherein each independent associated control application is operable to identify any failed peripheral device that does not acknowledge receipt of a signal, and to communicate the functional state of that failed peripheral device to other independent associated control applications (Kraslavsky, col. 14, lines 5-15). See motivation above.

11. Regarding claim 26, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein each peripheral device uses a registry for maintaining a record of the functioning peripheral devices in the terminal. Kraslavsky disclosed keeping statistics and a log of the devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

12. Regarding claim 27, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control applications implement a team building process for indicating their availability. Kraslavsky disclosed peripheral devices indicating availability (Kraslavsky, col. 14, lines 5-15). See motivation above.

13. Regarding claim 28, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 27, including wherein as part of the team building process, each independent associated control application associated with an available peripheral device transmits a start-up signal (Kraslavsky, col. 14, lines 5-15). See motivation above.

14. Regarding claim 29, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 28, including wherein the start-up signal includes an identifier for the peripheral device being initialized and an address at which

the peripheral device receives signals (Kraslavsky, col. 14, lines 5-15). See motivation above.

15. Regarding claim 30, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 29, including wherein the start-up signal is broadcast to other peripheral devices (Kraslavsky, col. 14, lines 5-15). See motivation above.

16. Regarding claim 31, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 30, including wherein the start-up signal is communicated directly to predetermined addresses that correspond to other peripheral devices (Kraslavsky, col. 14, lines 5-15, col. 17, lines 30-45). See motivation above.

17. Regarding claim 32, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein the independent associated control application associated with each peripheral devices creates a functional group registry comprising the addresses and identity of each peripheral device that has sent a startup signal. Kraslavsky disclosed logging device information from startup signals received (Kraslavsky, col. 14, lines 5-15). See motivation above.

18. Regarding claim 33, Ward, Vachon and Kraslavsky disclosed the limitations, substantially as claimed, as described in claim 32, including wherein each independent associated control application transmits a shut-down signal when its peripheral device is no longer able to operate properly; each independent associated control application being operable to modify its functional group registry in response to a shut-down signal from another peripheral device to indicate the removal of that peripheral device from operation (Kraslavsky, col. 14, lines 5-15, 30-45).

19. Regarding claim 35, Ward and Vachon disclosed the limitations, substantially as claimed, as described in claim 20. Ward did not explicitly state wherein, in use, each of the independent associated control applications is executed on a processor within its associated peripheral. Kraslavsky disclosed a printer containing its own processor and running applications (Kraslavsky, col. 14, lines 5-45).

20. Claims 37-40 include limitations similar to the limitations found in claims 20-36, and are therefore rejected under the same art as claims 20-36 as being substantially similar.

(10) Response to Argument

Applicant presents the same argument for sections B-D:

1.) "that Vachon does not teach or suggest that each of the peripheral devices has an independent associated control application that communicates directly with each other independent of the central processor, whereby, in use, each peripheral device operates in response to signals generated by the central processor as well as all other peripheral devices whose operation depends on or is connected with the state of that peripheral device" [Br. 5].

In response to Argument 1.) Examiner respectfully disagrees.

Vachon disclosed, "Transfer of data by peripheral devices via DMA without processor intervention, however, is especially suitable for computerized data acquisition applications" (Vachon, col. 1, lines 55-60).

Vachon also explicitly disclosed, "The interfacing device is also capable of transferring data between devices located on the peripheral bus as well as performing control functions for those devices requiring processor intervention" (Vachon, col. 2, lines 37-41).

These citations clearly show that the peripheral devices of Vachon communicate with each other without processor intervention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/J. Bret Dennison/

Examiner, Art Unit 2143

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